DOCUMENT RESUME

ED 095 230 32 UD 014 490

AUTHOR Chapline, Elaine B.
TITLE Title 1, E.S.E.A. Programs, School Year 1973-1974. Evaluation--Final Reports, July, 1974.
INSTITUTION Community School District 22, Brooklyn, N.Y.
SPONS AGENCY Bureau of Elementary and Secondary Education (DHEW/OE), Washington, D.C. Div. of Compensatory Education.
PUB DATE Jul 74
NOTE 39p.

EDRS PRICE MF-$0.75 HC-$1.85 PLUS POSTAGE
DESCRIPTORS Compensatory Education Programs; Elementary Schools; Individualized Instruction; Junior High Schools; Mathematics Instruction; *Paraprofessional School Personnel; *Program Evaluation; *Reading Programs; *Remedial Reading Clinics; Small Group Instruction; Tutorial Programs; Urban Schools
IDENTIFIERS Elementary Secondary Education Act Title 1; ESEA Title 1; *New York City

ABSTRACT

The Reading Skills Centers, funded under Title 1 of the 1965 Elementary Secondary Education Act, were designed to improve reading skills of the target population consisting of optional assignment children who were economically deprived and retarded in development of reading skills. Centers were operated in six elementary and one junior high schools, each staffed by a teacher and educational assistant/associate. The program entitled Educational Assistants to Aid Underachievers, funded under Title 1 of the 1965 Elementary Secondary Education Act as part of the Optional Assignment Program, was designed to improve the reading and mathematics skills of the "optional assignment" students who are also economically and educationally deprived. Each of the educational assistants was, where necessary, to work with small groups and individuals under the direction of the teachers, supervise optional assignment children on buses, aid with homework, and arouse interest in reading. At Public School 269, which was designated as a Title 1 school, remediation services were provided initially to improve the reading and mathematics skills of approximately 370 eligible pupils in grades 1-6. Several modifications were made to the program at P. S. 269 in February 1974 to service an additional 98 pupils. (Author/JM)

ED 095230

COMMUNITY SCHOOL DISTRICT 22

BROOKLYN, NEW YORK

BEST COPY AVAILABLE

Ralph T. Brande
Superintendent

Audrey Weiner
Supervisor, Reimbursable Programs

EVALUATION - FINAL REPORTS

JULY, 1974

TITLE I, E.S.E.A. PROGRAMS, SCHOOL YEAR 1973-1974:

Reading Skills Centers
Function #75-41631

Educational Assistants To Aid Underachievers
Function #75-41631

P. S. 269 Component
Function #75-41652

U.S. DEPARTMENT OF HEALTH
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

UD 014 190

BEST COPY AVAILABLE

COMMUNITY SCHOOL DISTRICT 22

READING SKILLS CENTERS

TITLE I PROGRAM, 1973-1974

FUNCTION #75-41681

FINAL REPORT

PREPARED BY:

Elaine B. Chapline, Ph.D.
Associate Professor
Queens College of
The City University of New York

July, 1974

BEST COPY AVAILABLE

READING SKILLS CENTERS

The Reading Skills Centers were designed to improve reading skills of the target population consisting of optional assignment children who were economically deprived and retarded in development of reading skills. Centers were operated in six elementary and one junior high school, each staffed by a teacher and educational assistant/associate (EA).

Evaluation Procedures

The six elementary school sites (P.S. 193, 203, 206, 217, 251, 255) and Junior High 240 were visited at least twice, with the first round of visits in December and January, and the final round in May and June. Observations of the Centers' operation were made and interviews conducted with teacher and EAs. Children's learning activities were observed in each setting.

Since children had been initially selected for participation in the Centers based upon reading tests administered in April 1973, these scores served as pre-tests. Post-test scores were the Metropolitan Achievement Tests administered in April 1974 in the children's classrooms, using levels appropriate to their grade placement. Scores were treated with the historical regression analysis prescribed for evaluations by the State Department of Education (N.Y.).

Program Operation

Children were selected for participation in the elementary school Centers if they were optional assignment chidren and if they had reading scores two years (in some cases more) below level on the Metropolitan Achievement Test, administered in all schools, using levels and forms appropriate for the various grades. Some of the participating schools indicated that at least 90% of the children in the program were included based on the above criteria, and that children from the local district who had marked economic and educational needs were included, as authorized by the State Education Department. By and

large, the children were selected from grades 4, 5 and 6, with a smaller number of 3rd graders or 2nd graders being served in those schools in which they could be accommodated. It was apparent that the pressures of children's educational needs varied markedly from school to school. In some cases, for example, the Center was fully scheduled with children from upper grades and personnel wished they could make the service available to additional needy children, while in others it was possible to offer the service to younger children and to have less full groups.

Typically, the children came to the Reading Skills Center for four regularly scheduled periods per week, of 40 - 45 minutes each. From 73 to 109 children were reported being served in each of the Centers.

The personnel in each Center consisted of an experienced professional and an EA, who had developed a cooperative working relationship. In more than half of the Centers, the teacher had been specifically educated as a specialist in reading. The EAs were not only experienced and trained for their work, but had specifically worked in the Reading Skills Centers program, and in some cases, had worked with the same teacher. In one case, a replacement for an ill EA had been made in the last part of the school year. That new person appeared to have assumed her role quite competently.

A wide variety of materials was present in all elementary settings. Characteristically, the room was equipped with a large number of carrels which provided individual work space for each child. While the specific nature of equipment in any one setting reflected the local history, in most cases, equipment and materials from Educational Development Laboratories (EDL) were much in evidence and in wide use (namely, Junior Controlled Readers, Tach-X, Listen and Think, etc.). The Hoffman, Singer-Graflex, Systems 80, Spellbinder, Reader's Digest Listening Program and library books were widely available and in frequent use. While there were differences in the space

available, room arrangement and equipment, all Centers were provisioned with equipment and materials to provide for children's individual needs.

In some settings, teachers made full use of bulletin board space to provide colorful attractive displays of children's work or of learning materials. Some teachers seemed aware of the contribution that room decor can make to the interest value of a room, and had changed displays during the year. One teacher had secured children's art work from another teacher in the school, which when hung, added to the visual pleasure of the room. Many teachers made functional use of wall space, by posting notices on bulletin boards, providing directions for new activities, and so on. All of these attempts add to the quality of the learning environment and provide additional or incidental stimulation for the participants.

It was apparent during observations that routines had been established and that children had a clear sense of how to act appropriately in the Centers. A variety of techniques were used for getting children started on their individual or group work (namely, names on chalk board for various activities, notation in child's work folder, notes distributed by EA, etc.). These routines, while they are essential to the functioning of a complex, individualized program, should not become stale and completely predictable. Most teachers gave evidence of concern for having a freshness in approach, for varying each child's activity and for providing novelty in materials. In the latter part of the year, teachers were giving children increased opportunities for selecting their own activity for part of the session.

Children characteristically got busy with their assigned tasks and gave attention to their work promptly, on entering a Center. They generally appeared interested in the things they were doing. In a typical session, the teacher and EA were conducting sub-group lessons, moving around among

individuals or small groups giving directions, asking or answering questions, making notes, checking on work, etc. The atmosphere was characteristically serious and oriented toward productivity. Settings differed with respect to warmth on the part of the adults. The most positive situations were characterized by emotional support and acceptance of children, accompanied by clear direction and supervision of learning activities.

Children had taken a series of diagnostic tests in the Fall (e. g., Slosson, Spache, Roswell-Chall, Informal Reading Inventory, etc.) which had yielded information on each child's specific skill needs. Teachers had compiled these data and recorded them in profile form, which they appeared to be using as a guide in educational planning. Periodic checks of children's gains in skill areas were included as a part of the regular program. In most cases, these checks were built into the teaching materials. While each Center's style had some unique features, all had extensive record-keeping procedures which appeared to serve their purposes quite well. It appeared that there was accurate information available on each child's current status and progress.

While much of the available technologically based equipment is well-designed for independent use by children, clearly many things can go awry. Children need close supervision in order to make the most appropriate use of even those materials designed for self-pacing independent use. In early observations, it was noted that the Spellbinder, for example, should not become a guessing game to see when the lights will all be lighted, with little regard for the concepts or skills involved. When a child's Junior Controlled Reader speed was incorrectly set, or when the filmstrip wasn't moving through the machine correctly, the child needed supportive supervision. If a story film which included illustrations and a printed story was not synchronized, the children needed assistance, since it appeared

that some children were uncertain about whether to attend to what they were seeing or what they were hearing. In later observations, it was noted that children had mastered the techniques for handling the laboratory equipment to a considerable degree. While there were still occasions when a child needed the support of an adult who would help him cope with a situation by providing direction or resolving an equipment problem, there were evidences of children's increased independence in functioning.

While early snags in the use of equipment had been largely overcome, problems remained throughout the year in some of the content of published materials. Some materials are clearly remote from the children's experience. In some cases, this is due to the dated nature of illustrations, while in others it is related to the discrepancies between the urban experiences of the children and the "middle-America-town" quality of some of the content. To the degree that these gaps between children's experiences and the materials can be bridged, children can identify with the content, develop concepts and understand ideas. Some teachers showed considerable concern for trying to meet this problem and move toward solutions. Discussions with children about the meanings and implications of their reading materials were observed. These are to be commended, as are the efforts of some teachers to devise activities which enhance children's understandings of what they have read. Discussion also played an important role in vocabulary building activities observed. Here it was especially important to relate to children's experiences and styles of expression. It is essential that the teacher be sensitive to children's awareness of language usage. For example, in one observation, in response to a teacher's having said, "You hear that expression," a child responded, "You may hear that, but don't nobody say it."

Most teachers observed that children's decoding skills were obviously being increased, but that emphasis needed to be placed on children's comprehension

and concept formation. It was noted during observations that children's errors on exercises after reading stories tended to occur more on questions which involved drawing inferences. It seems possible that discussion about story characters and their feelings may be of some help to the children in gaining skills in inferring motivation of characters.

Relating reading to content areas may also be helpful in increasing reading comprehension. This is especially important in upper elementary grades. Recently acquired materials seen in one setting look promising for helping children to gain information as well as reading and study skills in mathematics, science, history and geography (i.e. Reading Skills in the Content Areas, published by Educational Research Inc., in Sound Learning Systems). In these content areas, also, the teacher's ability to engage the child in discussion may be important. Here, too, the teacher may serve a vital role in helping the child to relate his experiences to the materials being provided.

Developing and maintaining communication with children's classroom teachers was being carried out by teachers in Centers in varying degrees. The most positive situations were characterized by regular monthly contacts to discuss each child's progress and plans for future classroom and Center activities. This regularity of contact helps both teachers to focus on the child's needs and development so that freshness and sharpness can be maintained in the program.

The Junior High setting, adapted to the 8-period day in its school, served approximately 70 children per week in five laboratory periods of 40 minutes each. Two sections each of 8th and 9th graders, and one of both 8th and 9th graders were organized. While there were differences in the needs of the children being served, both educationally and developmentally, there was similarity in materials and in individualization techniques to those used in the other Centers in the program. Children in this setting were from

two to five years retarded in their reading achievement. Many of the children had had difficulties in school generally and were being seen by one of the two guidance counselors in the school for assistance. The teacher, who is assisted by two EAs in a large pleasant room, provides program plans for each group to follow. As a class enters the room, they see their names listed for various activities on the chalkboard. The teacher insures variety in each student's program. It appears that this approach is successful in keeping children's interests in activities maintained. The teacher emphasizes the enjoyment of reading and the integration of reading in people's lives. She encourages her students to circulate paperback books from the Center's library, and there were indications that many of the books had been used by the students, and were seen by them as a source of pleasure.

Pupil Achievement

Scores on the Metropolitan Achievement Reading Test were obtained for students in grades 3 through 9. Pre-test scores were based on tests administered in April 1973, and post-test scores were based on April 1974 tests.

Data were analyzed using an "historical regression" technique. A predicted post-test score was calculated based upon each student's previous rate of reading growth and the time interval between the pre-test and post-test. The set of predicted post-test scores was compared statistically with the actual post-test scores using the Sandler's A ratio. If there are significant differences between predicted and achieved post-test scores so that the student's actual achievement is greater than may be anticipated, it is possible to infer that the program has been successful in accelerating students' growth in reading skills. In other words, the students' average achievement is said to be higher following participation in the program than it would have been had they not been in the program, when achieved scores significantly exceed predicted

post-test scores.

Table I presents the pre-test, predicted post-test and achieved post-test scores for all participants at each grade level for whom both pre- and post-tests were available, and the results of the statistical analysis. Scores are presented as grade equivalents.

Table I

Analysis of Metropolitan Reading Achievement Test Data

Grade	Number of Scores	Pre-test Means	Predicted Post-test Means	Achieved Post-test Means	Sandeler's A Test
3	91	2.34	2.81	3.11	.07**
3a	41	3.14	3.33	3.82	.06**
4	87	3.08	3.58	4.11	.05**
4a	23	2.83	3.02	3.31	.14*
5	90	3.50	3.98	4.73	.02**
5a	21	3.29	3.46	4.27	.77
6	54	4.21	4.64	5.37	.04**
6a	13	4.09	4.34	4.87	.42
8	33	5.22	5.67	6.07	.10**
8a	2	2.90	3.05	5.45	.51*
9	18	4.80	5.16	5.43	.79
9a	2	3.30	3.37	3.50	3.11

a, 3a - 9a, indicates participation since January, 1974

* $p < .05$
** $p < .01$

Students who had participated in the Reading Skills Centers for the full academic year, in grades 3, 4, 5, 6 and 8 made significant gains in reading skills. At 9th grade level, some gain was noted, but it was not sufficiently

great to be statistically significant. Students who participated in the program during the late Winter and Spring, in grades 3, 4 and 8 also made significant skill gains. It is noteworthy that the full-year participants in grades 4, 5 and 6 made gains in excess of one year's growth.

From the growth which children have made, it is appropriate to conclude that the program has been successful in meeting its objective of improved reading skills of target children.

Recommendations

The Reading Skills Center program seems to be achieving its goals, and to be operating in ways which are effective. It is recommended that this program be maintained in District 22.

The following recommendations are offered in the interest of improving the program:

1. Continuation of the highly individualized program with some increased emphasis in all settings of matching the materials and tasks even more accurately to each child's needs.

2. Continuation of, and increase in, learning activities which emphasize comprehension of reading materials, concept formation and inference making.

3. Continuation of, and increase in, the design and development of materials by teachers for the children in their particular setting. These additions need not be elaborate to be effective with children. They may well serve the purposes of personalizing the learning experiences in the Center for the children, and of reducing the gap between children's life experiences and materials provided in school.

COMMUNITY SCHOOL DISTRICT 22

EDUCATIONAL ASSISTANTS TO AID UNDERACHIEVERS

TITLE I PROGRAM, 1973-1974

FUNCTION #75-41681

FINAL REPORT

PREPARED BY:

Elaine B. Chapline, Ph. D.
Associate Professor
Queens College of
The City University of New York

Wendy G. Oxman, Ph. D.
Associate Professor
Montclair State College

July, 1974

EDUCATIONAL ASSISTANTS TO AID UNDERACHIEVERS

The program entitled Educational Assistants to Aid Underachievers, funded under Title I ESEA as part of the Optional Assignment Program, was designed to improve the reading and mathematics skills of the "optional assignment" students who are also economically and educationally deprived. Each of the Educational Assistants (EAs) was to work with the "first and second grades as needed," and "where necessary," to work with "small groups and individual optional assignment children under the direction of the teachers, in order to bring reading and mathematics grades up to level." (Project Proposal) In addition to classroom assignments, the EAs were to supervise the optional assignment (OA) children on the buses, aiding with homework and arousing interest in reading. Continuous training was to be provided by the teachers, assistant principals and principals.

Evaluation Procedures

Visits were made by members of the evaluation team at least twice to each of the 11 program sites. Interviews were held with each EA present, and in most schools with her supervisor. Most of the EAs were observed at work with children.

Testing in reading and mathematics, using the Metropolitan Achievement Tests, on levels appropriate for the various grades, or the Stanford Early School Achievement Test, was carried out by classroom teachers. Statistical treatment of these test scores, on an IBM 360 computer, used the statistical techniques now prescribed for evaluations by the New York State Department of Education.

Program Operation

The full number of EAs had been employed, assigned to schools as specified in the proposal. There had been personnel changes in several instances during the school year. As one EA left, due to illness, for example, another promptly replaced her so that the staff was maintained in full strength.

The EAs were generally observed to be teaching reading skills, and in some cases mathematics skills, to groups of 2 to 10 children. The children served by any individual ranged from 8 to 20, with an average of 14. In most cases, individual children eligible for the program were selected from different classrooms and assigned to an EA. Most of the children being served were from 1st through 3rd grade. Some children were being served every day, while others were seen 3 to 4 times per week. These variations in numbers of children served and frequency of service were related to the number of children needing service in each particular school.

During the final round of observations in May, in several instances, EAs were observed assisting within classrooms and sharing teaching and supervision responsibilities with the teacher. It seems questionable that all the children being served (approximately half a class) were designated "target children" of the program. It appeared to the evaluators that there was a tendency as the school year's end approached for services to be granted to children with particulary pressing needs, in some schools. When an EA had been assigned to work in a classroom for the morning, for example, there seemed to be a fairly easy transition to an EA - as - assistant teacher role. While it is understandable how this can occur, this role is not what was designed or expected in this particular program.

The more frequent pattern observed was for the EA to call for the children at their classrooms and take them to other spots for instruction. Some schools had sufficient free space to permit the use of a separate room. In

these cases, the EAs were able to organize materials and make them readily accessible for use, decorate the room with children's work or interesting displays, etc. As one might expect, the morale of EAs working under those conditions tended to be higher than that of those working under conditions where constant shifts in space were expected. In a number of instances, interruptions and distraction from multiple concurrent activities seemed to be the norm; for example, a room used simultaneously by parent volunteers, a room designated as a mathematics laboratory and used simultaneously with a whole class, a "teachers' room," and a "lunch room." In some cases, the EAs found it necessary to use various rooms at different times and to use appropriated space or to work in hallways.

Typically, the EA was supervised by the Corrective Reading Teacher or an Assistant Principal. In a few cases, a classroom or library teacher provided some supervision. The amount of supervision varied. The least supervision reported was "none since February" when an EA was seen in May. The most supervision involved daily contacts with the classroom teacher with whom the EA worked for part of each day. In few cases was supervision continuous in the sense that all work done by an EA was known to the supervisor. In most cases, the EA had considerable responsibility for her own instructional planning, materials selection and record keeping, although professional personnel were, according to the EAs, very helpful with ideas, materials and suggestions when approached.

Many of the sessions observed in which EAs were teaching small groups or individuals appeared to have been well planned. The level of instruction, the materials and the methods used appeared to be appropriate to the children's learning needs. In several cases, a variety of materials and techniques were used by an EA during a single instructional session. The children, with few exceptions, seemed interested in their work and attentive to their tasks.

A wide range of materials was available for use in many of the schools. In some cases, EAs were observed using materials selected by a child's classroom teacher, while in others they used supplementary reading books, basal readers, word or phonics games, dittoed work sheets, mathematics laboratory equipment, etc. Some of the new materials purchased by the District to provide special stimulation were used enthusiastically on a regular basis by some EAs, while others remained unused. The materials' use seemed to depend on the Ea's training and experience as well as on any specific materials' appropriateness for a given child's use.

By and large, the EAs were experienced and had previously served in their present school or in other schools. Several of the EAs were mothers of optional assignment children and all served as supervisors of the OA children on the buses. In addition to bus duty, several EAs reported being on "lunch duty" and on occasional "yard duty." Only one EA reported performing additional school services, such as running ditto masters in the office.

Bus duty was seen by individual EAs in very different ways. Many felt quite satisfied and confident about their work on the bus, while a few still found it difficult and trying. Successful bus situations often were associated with the Eas having been assigned to a bus for a period of time, and having established a cooperative relationship with the bus driver. Several EAs displayed strong positive attitudes toward their work as they described the contribution they felt they made on the buses, for example, helping a child who needed assistance socially, solving some discipline problems, supporting children's interest in school, carrying out contacts with parents, and so on.

The training program provided for the EAs, coordinated by the Project Director at the District Office was viewed favorably by the participants . The EAs saw it as a source of "good new ideas," "a help in planning," "a place to discuss problems," "interesting new materials,: etc. By the

end of the school year, however, most of the EAs expressed a desire for more frequent training sessions, and for additional training and supervisory contacts in their school settings. The chief gain to be sought in increased supervision would be the assurance of a closer relationship between each child's learning activity in the classroom and learning activity with the EA.

The sources of stress described in the Interim Report associated with the delivery of service to optional assignment children and not to needy district children were still evident in the latter part of the school year. The tendencies to respond to the needs of an increased number of district children may be attributable to the stress that strict guidelines for the program have placed upon the schools. It seems plausible that these actions (for example, the EA assisting the teacher in the classroom with half of the class) may be in keeping with the "spirit" of the program and its goals to serve children with marked educational needs.

In summary, the program was seen as fully operational, staffed by personnel with a high level of commitment and skill. In the main, it is operating according to the proposed design. Problems center around severe space pressures in some of the schools, and limitations in continuous supervision.

Pupil Achievement

Scores on the Stanford Early School Achievement Test (Level II) were obtained for 1st and 2nd grade pupils. In some cases, pupils did not take pre- and post-tests or did not take each sub-test. Pre- and post-test scores on each of the five sub-tests were analyzed using Sandler's A statistic. Table I presents the results of these analyses. (See next page.)

Differences between pre- and post-test scores were statistically significant, with the exception of the grade 2 mathematics subtest, for which

Table 1

Analysis of Stanford Early School Achievement Test Scores, Grades 1 and 2

Subtests	Grade 1 N	Grade 1 Pre-test Mean	Grade 1 Post-test Mean	Grade 1 Sandler's A	Grade 2 N	Grade 2 Pre-test Mean	Grade 2 Post-test Mean	Grade 2 Sandler's A
Letters & Sounds	35	26.14	34.29	.05**	18	34.83	37.67	.17**
Aural Comprehension	37	14.16	16.59	.08**	18	16.94	19.06	.11**
Word Reading	37	29.86	47.32	.04**	18	46.94	51.50	.17**
Sentence Reading	32	12.66	19.31	.06**	18	19.65	28.59	.13**
Mathematics	5	32.40	40.80	.30*	2	38.00	44.50	.53*

* $p < .05$
** $p < .01$

only two scores were available.

Scores were also available for 1st and 2nd grade students on the Metropolitan Achievement Test in Reading and Mathematics. These scores were analyzed in similar fashion, comparing pre- and post-test scores, using Sandler's A statistic. The results of the analysis are presented in Table 2. Scores are presented as grade equivalents.

Table 2

Analysis of Metropolitan Achievement Test Scores, Grades 1 and 2

	Grade 1 N	Grade 1 Pre-test Mean	Grade 1 Post-test Mean	Grade 1 Sandler's A	Grade 2 N	Grade 2 Pre-test Mean	Grade 2 Post-test Mean	Grade 2 Sandler's A
Reading	12	1.25	2.01	.10*	45	1.86	2.56	.03**
Mathematics	4	1.40	2.40	.27**	37	1.82	2.30	.05**

* $p < .05$

** $p < .01$

Scores on the Metropolitan Achievement Test in Reading were obtained for participating students in grades 3 through 6. Data were analyzed using a "historical regression" technique in the following manner. First, an "anticipated" score was obtained for each participant. Each student's anticipated score represents an estimate of the score that he would have achieved had he not participated in the program, and is based upon his previous rate of growth and the length of time that had elapsed between the pre-test and post-test measures. The set of anticipated, or predicted post-test scores is then compared statistically with the scores actually achieved, at the end of the program, on the post-test measure, using a Sandler's A ratio. A significant difference between the actual post-test and the predicted post-test scores in favor of the scores actually achieved is considered indicative of program success. In other words, the students' average achievement is said to be higher following program participation than it would have been had they not been in the program.

Table 3 presents the pre-test, predicted post-test and achieved post-test scores for all participants at each grade level for whom both pre- and post-test Metropolitan Achievement Test scores were available, and the results of the data analysis.

Table 3

Analysis of Metropolitan Reading Achievement Test Data

Grade	Number of Scores	Pre-Test Means	Predicted Post-test Means	Achieved Post-test Means	Sandler's A test
3	33	2.37	2.82	2.93	.36*
4	22	2.80	3.21	3.40	.49
5	24	3.15	3.52	4.02	.11**
6	12	4.22	4.63	5.21	.27*

* $p < .05$
** $p < .01$

With the exception of grade 4, students scored significantly higher at the end of the program than would have been expected had they not participated in the program.

Scores on the Metropolitan Achievement Test in Mathematics Computation were also obtained and analyzed in similar fashion. Table 4 presents the test data and the results of the statistical analysis.

Table 4

Analysis of Metropolitan Achievement Test Data - Mathematics Computation

Grade	Number of Scores	Pre-test Means	Predicted Post-test Means	Achieved Post-test Means	Sandler's A test
3	7	2.49	3.06	2.90	6.13
4	24	2.95	3.46	3.40	13.54
5	9	3.13	3.56	5.00	.17*
6	3	5.63	6.37	6.60	1.41

* $p < .01$

Students in grade 5 scored significantly higher in mathematics than would have been expected had they not participated in the program. Although gains were noted in grades 3, 4 and 6, in grades 3 and 4, these gains were not as great as those predicted. In grade 6 the gain, though substantial, was not significantly greater than expectation. However, only three scores were available for grade 6, and these three students achieved a whole year's growth at approximately grade level.

In summary, the students in grades 1 and 2 showed significant growth in reading and mathematics skills during their participation in the program. Reading skill gains were substantial for grades 3, 5 and 6 participants, and mathematics gains for grade 5. While, clearly, every child in the program did not gain dramatically, there is sufficient growth to suggest

that the supplementary services provided by the EAs were beneficial for the children in the program.

Recommendations

This program seems to be essentially achieving its goals of providing services to optional assignment children who are educationally and economically deprived in order to increase the children's reading and mathematics skills. It is recommended that this program be maintained in District 22.

The following recommendations are offered in the interest of improving the program:

1. A greater degree of supervisory assistance to the EAs is needed. In addition to the evaluation team's judgment about the need for increased supervision, most of the EAs have expressed a need for additional direction and continuity of supervision.

2. Greater coordination of effort between the classroom teachers of participating students and the EAs is needed, with the initiative taken by, and responsibility resting with, the teachers.

3. Additional planning for space utilization in those schools in which EAs have not been able to locate and use appropriate space for their work sessions with children is needed. While it is recognized that space pressures are severe in some schools, it seems likely that some better solutions could be devised than those currently in use.

4. Planning of techniques for recording and reporting work to the District Office to maximize the efficiency of the system and to minimize repetitious work on the EA's part should be considered.

BEST COPY AVAILABLE

COMMUNITY SCHOOL DISTRICT 22

TITLE I UMBRELLA, COMPONENT # 2 - P. S. 269

1973-1974 SCHOOL YEAR

FUNCTION #75-41652

FINAL REPORT

PREPARED BY:

Linda Lyons
Evaluation Director

July, 1974

TITLE I UMBRELLA, COMPONENT #2 - P. S. 269

SUMMARY

At P.S. 269, which was designated as a Title I school, remediation services were provided initially to improve the reading and mathematics skills of approximately 370 eligible pupils in grades 1 through 6. Initially, there were four sub-components in operation at the Main Building, to service pupils in grades 3 through 6, and at the Annex, to service pupils in grades 1 and 2. Sub-Component A, the Reading Skills Center, serviced pupils in grades 4 through 6. An experienced reading teacher, assisted by four educational assistants, devised and carried out an individualized program in accord with pupil need. A variety of hardware and software materials was in use. Under Sub-Component B, the Reading Diagnosis and Remediation Program, four educational assistants worked with 1st and 2nd graders at the Annex. An early childhood specialist position was filled at mid-year, so that supervision and coordination of services at the Annex were more fully implemented during the latter part of the school term. The four educational assistants servicing pupils in grades 3 through 6 worked under the direct supervision of a reading teacher and utilized hardware and software materials during instructional periods. Another educational assistant assigned at mid-year worked with pupils discharged from the Diagnostic Center, under the supervision of the Center reading teacher. Allocation of a guidance counselor was made, yet this position was not filled until May. Under Sub-Component C, mathematics instruction was provided by two educational assistants at the Annex, and one at the Main Building, who worked under the supervision of a mathematics cluster teacher. Under Sub-Component D, an educational assistant offered English language instruction to French and Spanish speaking pupils at the Annex. An ESL teacher, allocated at mid-year, assumed responsibility for coordinating aspects of the program to service youngsters throughout the elementary grades. Overall, substantial improvement for most pupils was shown in

the curriculum areas of reading and mathematics. Strategic personnel who coordinated various facets of the program constituted the greatest program strengths. The greatest program weaknesses were derived from the fact that several strategic staff positions were made available at mid-year. It was recommended that provision for specialized personnel be made at the beginning of the school term, to ensure optimal program functioning. Services provided at P.S. 269 are vitally needed, and it is recommended that the program be recycled.

I. PROGRAM DESCRIPTION

Because of the large number of educationally disadvantaged pupils in attendance, P.S. 269 has been designated as a Title I school. Services were designed to upgrade the reading and mathematics skills of approximately 370 eligible pupils in grades 1 through 6. Initially, the program consisted of four operational subcomponents.

Sub-Component A: Reading Skills Center: Pupils in grades 4, 5 and 6 who were deficient in reading were to be assigned to the Reading Skills Center for daily 45 minute sessions. The Center was to be staffed by a reading teacher and four educational assistants who would provide individual instruction in reading according to pupil need. The reading teacher was to administer diagnostic tests, assign materials, monitor and record pupil progress, and was to be responsible for training and supervising the educational assistants. Conferences with parents were also to be held. Materials provided for small group instruction included EDL Junior Controlled Readers and Tachistoscope, Hoffman Machine, Borg-Warner Systems 80, and other learning supplies.

Sub-Component B: Reading Diagnosis and Remediation Program: A teacher with special training in diagnosis and remediation was to be assigned to work with pupils in grades 1 through 6 who did not attend the Reading Skills Center. The teacher was to be assisted by eight educational assistants: two assistants

were to be assigned to grades 1 and 2; two assigned specifically to the Distar program in grades 1 and 2; four assistants were to be assigned to grades 3 through 6 and would circulate throughout the classes with Hoffman Reading Machines and other necessary materials. Teacher responsibilities were to include diagnostic testing and daily work with individuals and small groups. The teacher was to be responsible for supervising and training the assistants in instructional techniques. Equipment and supplies provided under this sub-component included Distar and Hoffman materials, as well as materials to develop perceptual, phonics and listening skills.

Sub-Component C: Math Remediation: To provide remediation in mathematics to those pupils in need of these services, two educational assistants were to be allocated. An assistant was to work with pupils in grades 3 through 6 under the supervision of the Math Cluster Teacher. A second assistant was designated to work with pupils in grades 1 and 2 at the Annex, under the supervision of a classroom teacher or Math Cluster Teacher. Diagnostic tests were to be administered and individual programs devised to improve specific skill deficiencies. The educational assistants were to work with individuals and small groups, utilizing math laboratory materials as well as Mathematics Kits.

Sub-Component D: English-as-a-Second Language: A tri-lingual assistant was to be provided to offer English language instruction to 24 Spanish or French speaking pupils in grades 1 through 6. Under appropriate supervision, the educational assistant was to hold daily sessions with pupils on an individual or small group basis. Special materials allocated for this sub-component included The Language Master, cassettes, and other instructional aids.

II. OBJECTIVES AND EVALUATION DESIGN

Program Objectives: As a result of services provided, participants were to show significant improvement in reading and mathematics skills.

The following evaluation procedures were employed:

(1) Observations were made of all aspects of the program, and interviews were held with administrative, teacher and paraprofessional staff, as well as a sampling of pupils.

(2) Metropolitan Achievement Tests in Reading and Mathematics were analyzed on a pre- and post-test basis. A significant difference in predicted growth, based on past performance, and observed growth over the duration of the program was expected.

III. PROGRAM CHANGES

Under a modification, which went into effect in February, 1974, several additions were made to the program at P.S. 269, to service an additional 98 pupils.

Sub-Component B: Reading Diagnosis and Remediation Program: There were two additions to the staff. An educational assistant was assigned to provide followup services for those pupils who were discharged from the Elementary Diagnostic and Remedial Reading Program. The teacher at the Diagnostic Center was to devise and supervise the instructional program, and to provide appropriate supplies. Approximately six to eight pupils were to receive individual instruction by the educational assistant on a daily basis. Additionally, a guidance counselor was provided to identify and to service those underachieving pupils who displayed poor personal adjustment. Conferences were to be held with parents and teachers, and referrals to be made, when necessary, to appropriate agencies. The counselor was to offer individual and small group counseling to alleviate personal and school-related problems.

Sub-Component D: English-as-a-Second Language: Provisions were made for the allocation of a teacher of English-as-a-Second Language, to service the many

non-English speaking youngsters at P.S. 269. The teacher was to offer small group instruction to approximately 60 pupils, who were scheduled for three instructional sessions per week. The teacher was to supervise the work of the educational assistant initially assigned to this component. Various hardware and software materials were provided for instructional purposes.

Sub-Component E: Early Childhood Program: The services of two educational assistants were allocated to provide small group instruction to approximately 30 pupils in grade 2 who were seriously deficient in reading. The Early Childhood Teacher was to plan and supervise the work of the educational assistants. A variety of hardware and software materials was provided for remediation purposes.

IV. PROGRAM IMPLEMENTATION

The various sub-components initially approved were implemented in mid-November. Additions to the program, for the most part, were operational by March.

Sub-Component A: Reading Skills Center: The Center got underway smoothly and efficiently early in the school term. The teacher, as well as the four educational assistants assigned to the Center, were experienced in providing small group instruction in reading. Approximately 150 pupils in grades 4 through 6 were scheduled for sessions four times a week. The teacher diagnosed individual deficiencies, planned instructional sessions, and coordinated all aspects of the program. The teacher kept records of individual progress and areas of specific skill weakness, and conferred with classroom teachers with regard to followup procedures. The allocation of four assistants facilitated intensive small group instruction, particularly in view of the wide range of reading levels within each class. The educational assistants kept records of prescriptions and learning outcomes for each pupil, and met with the reading teacher four days a week to plan lessons in accord with pupil

needs. EDL equipment utilized in the Reading Skills Center included 25 individual Junior Controlled Readers and Tachistoscope. Additionally, Hoffman Machines and Borg-Warner Systems 80 were in use, as well as a Language Master which was utilized for the few non-English speaking pupils in each class. Additional software materials were in use to reinforce basic skills. Activities were scheduled so that a group lesson was offered twice a week; development of word attack and comprehension skills, as well as auditory discrimination, were provided. Pupils worked relatively independently at a variety of tasks; they often selected appropriate materials and kept records in their folders of the activity undertaken at each session, speed or scores obtained, and recommended followup procedures.

Sub-Component B: Reading Diagnosis and Remediation Program: The four educational assistants initially assigned to this sub-component at the Annex worked with small groups of three to five 1st and 2nd graders outside the classroom. Because of space limitations at the Annex, the auditorium or the cafeteria was utilized for small group instruction. These instructional areas were relatively large, so that several groups could work simultaneously with minimal distraction. Distar materials were provided for 1st and 2nd graders receiving these services, and various materials, such as phonics workbooks, flash cards, Bank Street Readers, were utilized for remediation. Other materials included Language Activity Cards, Bowmar Monster Series, Perceptual Development Kits. The assistants kept records of pupils' activities and progress. The Early Childhood Specialist, who assumed her position at the Annex in early January, assumed responsibility for supervising the educational assistants and coordinating all program components for 1st and 2nd graders. An individualized program was devised to remedy specific skill deficiencies in the areas of memory, discrimination and comprehension.

At the Main Building, the Reading Diagnosis and Remediation Program serviced pupils in grades 3 through 6. Personnel included a reading teacher and four educational assistants, who worked directly under the supervision of the reading teacher. Approximately 103 pupils in grades 3 through 6 were scheduled for remediation services on a daily basis. A small room was provided and all materials, including Hoffman Reading Machines, were maintained in the room allocated for this purpose. Assignment of personnel to a specific instructional area was found to be a more efficient means of providing small group instruction. The Hoffman Machines were utilized to develop phonics and comprehension skills. Software materials, including Bank Street Readers, Miniature Library, and rexographed sheets were often used later in the school term. McCall-Crabbs Test Lessons in Reading were provided for several 6th graders in need of reading practice for speed, rather than comprehension. The teacher held ongoing training sessions for the educational assistants, who worked independently with small groups of youngsters at each instructional session. Individual folders were kept and pupils recorded activities undertaken and progress with the various materials.

As of March, 1974, an educational assistant was assigned to provide followup services for pupils in grades 3 through 5 who had been discharged from the Elementary Diagnostic and Remedial Reading Program. Because of the lack of space available at P.S. 269, instructional sessions were held in the lunchroom. A total of 7 pupils were scheduled for remediation daily. Additionally, two alternates received services in the event of pupil absence. The assistant kept records of activities, pupil progress, and met twice a week with the teacher at the Diagnostic Center, who devised lesson plans and provided materials according to pupil need. Supplies utilized by the assistant included Vocabulary Cards, Sullivan Readers, Phonics Readiness Sets.

The guidance counselor, allocated under the program modification, did not assume his position until mid-May. Therefore, this aspect of the program was implemented only insofar as the counselor was able to identify pupils in need of additional services and to become familiar with outside agencies to which youngsters may be referred at a later date.

Sub-Component C: Math Remediation: At the Annex, two educational assistants were assigned to provide remediation instruction in mathematics to forty 2nd graders in need of these services. Initially, in-service training and supervision were provided by the principal. These responsiblities were later assumed by the early childhood specialist. The assistants kept records of pupil activities and progress. Sessions were often scheduled in the auditorium, due to lack of additional space at the Annex. Materials utilized for mathematics instruction included rexographed sheets, activity cards and workbooks. Additional supplies utilized later in the school term included early childhood math kits and a variety of forms, scales, and other math lab materials.

At the Main Building, an educational assistant serviced twenty pupils in grades 3 through 6. With the addition of a math cluster teacher to supervise all aspects of this sub-component, the schedule was reorganized. The assistant was able to service small groups of pupils three or four periods a week, both within and outside of the classroom. The assistant kept records of pupils' activities and areas of skill weakness. Materials utilized in the instructional program included flash cards, rexographed sheets, mathematics puzzles, Math Skills Kits, and various math laboratory materials; i.e., balance scales, discs, cuisenaire rods. In-service training was provided by the mathematics cluster teacher, and conferences were held on an informal basis with classroom teachers to discuss specific pupil needs.

Sub-Component D: English-as-a-Second Language: Initially, an educational assistant, conversant in French, provided English language instruction to twenty French and Spanish speaking pupils at the Annex. With the addition of an ESL teacher at mid-year, services were expanded to accommodate twenty-six 1st and 2nd graders at the Annex, and an additional thirty-four pupils in grades 3 through 6 at the Main Building. Small group instruction was offered to participants and sessions were held two or three times a week, under the direction of the ESL teacher. Facilities were provided in both buildings and supplies were transported as necessary. Materials provided included Language Master Card Program, Learning by Listening Cassettes Program, Beginning English Workbooks, and other supplies designed to develop English language skills. The educational assistant kept records of pupil progress and conferred with the ESL teacher with regard to all aspects of the instructional format.

Sub-Component E: Early Childhood Program: In March, 1974, two additional educational assistant positions were filled at the Annex. The assistants provided instructional services in reading and mathematics to approximately forty 1st and 2nd graders within the classrooms, under the supervision of the classroom teacher. Many of these pupils were receiving additional, ongoing instruction provided by other educational assistants. The program was organized in this manner to enable these pupils to keep up with regular classroom work. The early childhood teacher, although not as directly involved with this program component as with many others, planned, coordinated, and supervised remediation services in reading and mathematics provided by all educational assistants, with the exception of the ESL paraprofessional, at the Annex.

V. PROGRAM EFFECTIVENESS

Sub-Component A: Reading Skills Center: As a measure of program effectiveness, the mean growth of participants in reading was evaluated on a pre-test and post-test basis. These data are summarized in Table I.

TABLE I

Mean Scores for Participating Pupils
Metropolitan Achievement Tests in Reading

Grade	N	Pre-Test Scores	Predicted Post-Test	Obtained Post-Test	Sandler's A
4	14	2.84	3.18	3.48	0.2977
5	89	2.96	3.26	3.82	0.0249 **
6	87	3.63	3.98	4.72	0.0231 **

** significant at the .01 level

Although 4th graders showed greater improvement than would be expected on the basis of their previous performance, gains in reading were not significantly better than predicted performance. Nonetheless, for the majority of youngsters, gains in reading exceeded those to be expected based on pupils' prior performance. It is evident that this program objective was attained. The reading teacher, in planning and coordinating all aspects of the program, appeared to be effective in motivating pupils to work relatively independently to develop basic skills. The educational assistants were capable of providing remediation instruction to small groups of pupils. Materials selected for the program were appropriate for the ability level of participants. Pupils appeared to work consistently and enthusiastically on their assignments to improve reading skills.

Sub-Component B: Reading Diagnosis and Remediation Program: To assess the growth of 1st and 2nd grade participants in reading over the course of the program, pupil performance on Stanford Early School Achievement Tests was analyzed. Because it is not possible to obtain predicted post-test scores

for 1st and 2nd graders, pupils' actual post-test scores were compared with scores obtained on a pre-test basis. These results are presented in Table II.

TABLE II
Mean Scores for Participants in Grades 1 and 2 -
Stanford Early School Achievement Tests in Reading

Sub-Test	Grade 1 N	Grade 1 Pre-Test Scores	Grade 1 Post-Test Scores	Grade 1 Sandler's A	Grade 2 N	Grade 2 Pre-Test Scores	Grade 2 Post-Test Scores	Grade 2 Sandler's A
Letters and Sounds	54	12.13	30.39	0.0205**	51	25.22	34.12	0.0273**
Aural Comprehension	52	5.67	13.98	0.0230**	51	11.61	17.53	0.0334**
Word Reading	52	10.67	38.67	0.0226**	50	35.38	51.12	0.0248**
Sentence Reading	33	3.39	13.58	0.0343**	50	13.44	25.86	0.0289**

**significant at the .01 level

Data indicate that mean gains of 1st and 2nd graders in reading, on all four sub-tests, were significant. The instructional services offered by the educational assistants enabled pupils to upgrade basic skills in reading to a considerable extent. The ongoing supervision and coordination of instructional services provided by the early childhood specialist greatly enhanced the effectiveness of this component for 1st and 2nd graders.

As a measure of program effectiveness for youngsters in grades 3 through 6, serviced in reading at the Main Building, performance on Metropolitan Achievement Tests were evaluated. Actual scores obtained by pupils following program participation were compared with predicted scores, based on previous performance. These results are presented in Table III.

TABLE III

Mean Scores for Participating Pupils in Grades 3 – 6
Metropolitan Achievement Tests in Reading

Grade	N	Pre-Test Scores	Predicted Post-Test	Obtained Post-Test	Sandler's A
3	19	2.05	2.42	2.45	13.6398
4	42	2.35	2.66	3.14	0.0452**
5	31	3.42	3.88	4.59	0.0576**
6	31	4.13	4.59	5.15	0.0877**

** significant at the .01 level

Data indicate that gains for participants in grades 4 through 6 were significantly higher than would be anticipated on the basis of previous performance. Although some improvement was shown by 3rd graders, gains in reading were not significantly better than predicted performance. Overall, for the majority of participants, substantial improvement was evident. Instructional services provided by the educational assistants, under the supervision of the reading teacher, were effective in raising the reading level of a majority of youngsters in grades 3 through 6. The allocation of a separate room for remediation services, wherein materials and records could be maintained in a common instructional area, fostered optimal conditions for instructional sessions.

Under a program modification approved at mid-year, services of an educational assistant were allocated to work with youngsters who had been discharged from the Diagnostic Center, under the supervision of the Center reading teacher.

Results of the reading tests administered on a pre- and post-test basis are summarized in Table IV.

TABLE IV

Mean Scores for Participating Pupils
Slosson Oral Reading Test and Spache Diagnostic Reading Scales

Test	N	Pre-Test Scores	Post-Test Scores	Sandler's A
Slosson	7	1.20	1.90	0.3286
Spache	5	2.06	2.94	0.4432

Although youngsters showed some improvement in reading, post-test performance was not significantly higher than pre-test performance. Nonetheless, these followup services were provided for pupils in March, 1974, so that reading gains must be assessed in view of the short time interval during which instructional sessions were held. When considering further the fact that these youngsters serviced by the Center had demonstrated severe learning problems in reading, the fact that some improvement is shown is indicative of this aspect of the program.

Because guidance services, approved at mid-year under a program modification, were not provided until mid-May, it was not feasible to assess the effectiveness of this program.

Sub-Component C: Math Remediation: To assess the growth of 1st and 2nd grade participants in mathematics, over the course of the program, pupil performance on the mathematics sub-test of Stanford Early School Achievement Tests was analyzed. Because it is not possible to obtain predicted post-test scores for 1st and 2nd graders, pupils' actual post-test scores were compared with scores obtained on a pre-test basis. These results are summarized in Table V. (see next page)

Results indicate that significant gains in mathematics were made for pupils in grades 1 and 2. Services provided by the educational assistants were effective in upgrading the mathematics skills of participants. The

fact that the early childhood specialist, who coordinated and supervised all aspects of instructional services, was proficient in the teaching of mathematics skills, contributed to the overall effectiveness of this aspect of the program.

TABLE V

Mean Scores for Participants in Grades 1 and 2
Stanford Early School Achievement Tests
Mathematics Sub-Test

Grade	N	Pre-Test Scores	Post-Test Scores	Sandler's A
1	5	9.00	29.20	0.2356**
2	54	29.02	45.96	0.0230**

** significant at the .01 level

Table V (a)

Mean Scores for Participants in Grades 3 - 6
Metropolitan Achievement Tests in Mathematics

Grade	N	Pre-Test Scores	Post-Test Scores
3	4	2.1	2.55
4	5	2.9	3.5
5 - 6	9	4.2	4.8

The scores of the participants in grades 3 - 6 on the Metropolitan Achievement Test in Mathematics indicated a significant growth: 4.5 months in grade 3, and 6 months in grades 4, 5 and 6.

The educational assistant utilized a variety of materials to develop specific skill proficiencies of participants. The mathematics cluster teacher, assigned at mid-year, to supervise instructional services, developed and implemented the program in consonance with pupil needs. Overall, this aspect of the program functioned efficiently. Because the test scores were received late in the school year, it was not possible to compute a Sandler's A based on the pupils' predicted performance. Therefore, the data are presented on a pre- and post-test basis shown in Table V (a).

Sub-Component D: English-as-a-Second Language: To assess the progress of pupils under this sub-component, Stanford Early School Achievement Tests were administered on a pre-and post-test basis. These data are presented in Table VI.

TABLE VI

Mean Scores for Participating Pupils
Stanford Early School Achievement Tests - Spanish

	Pupils Serviced on Full Year Basis				Pupils Serviced on Half Year Basis			
Sub-Test	N	Pre-Test Scores	Post-Test Scores	Sandler's A	N	Pre-Test Scores	Post-Test Scores	Sandler's A
Letters and Sounds	23	20.09	29.43	0.0733**	29	33.45	35.52	0.1433**
Aural Comprehension	23	9.13	15.39	0.0708**	29	15.69	19.86	0.0697**
Word Reading	20	30.00	40.40	0.1275**	29	50.10	50.28	8.6800
Sentence Reading	18	14.00	17.56	0.2529*	29	25.86	26.90	0.4533

* significant at the .05 level
** significant at the .01 level

Test results indicate significant gains on all sub-tests for pupils serviced throughout the 1973-74 school year. For February entrants, significant improvement was shown on two sub-tests. Although some improvement was made on the other two sub-tests, gains were not significantly higher than performance on pre-test measures. It is apparent that intensive instruction, maintained throughout the school year, is vitally important to the development of language skills. The educational assistant demonstrated warmth and interest in working with pupils. The services of the ESL teacher, to devise and implement all facets of this sub-component, greatly enhanced overall effectiveness of the program.

Sub-Component E: Early Childhood Program: Because the educational assistants were assigned to this sub-component in March, which was rather late in the school year, their services were utilized primarily within the classrooms. Most of the youngsters serviced were already receiving additional instruction provided by other educational assistants, so that test data for these youngsters were included under other sub-components. Because personnel under this sub-component were allocated late in the school year, the educational assistants worked within the classrooms to enable pupils to keep up with classroom assignments. If approval had been received earlier in the school year, it would have been feasible to utilize the services of these assistants to provide instruction on a more intensive, individualized basis.

VI. PROGRAM STRENGTHS AND WEAKNESSES

The reading teachers at the Main Building and the Early Childhood Specialist at the Annex, who coordinated and supervised all facets of the program components in consonance with pupil need, constituted the greatest program strengths. Additionally, the allocation of an ESL teacher to supervise this sub-component contributed substantially to the effectiveness of this program. Overall, perhaps the greatest weakness stemmed from the fact that provisions were made at mid-year for strategic personnel, particularly the Early Childhood Specialist at the Annex, the ESL teacher and math cluster teacher. Youngsters may have derived greater benefit if additions to the staff had been made earlier in the school term.

VII. RECOMMENDATIONS

Because the provision of experienced personnel in specialized areas is vital to optimal program functioning, it is recommended that approval for these positions be received early in the school term. The Early Childhood Specialist, who assumed responsibility for program functioning and paraprofessional staff at the Annex, did not assume her position until mid-year. It would have been advantageous to pupils to have benefited from the services of this strategic staff member earlier in the school term, so that continuity of services could be maintained throughout the year in an optimal manner. A similar situation may be apparent with regard to the ESL position. Particularlyin the case of non-English speaking youngsters, services on an ongoing basis, provided by a teacher with special training in this area, are vitally important to develop language skills. Services provided under the various sub-components are vitally needed to improve skill proficiencies and upgrade the performance of pupils in the various curriculum areas. It is recommended that the program be recycled.